



Where **Science** Becomes **Hope**

## USING PATHOLOGIC RESPONSE TO DETERMINE DE-ESCALATION OF SURGERY AND NEED FOR ADJUVANT THERAPY--CON

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**EMORY**  
**WINSHIP**  
**CANCER**  
**INSTITUTE**

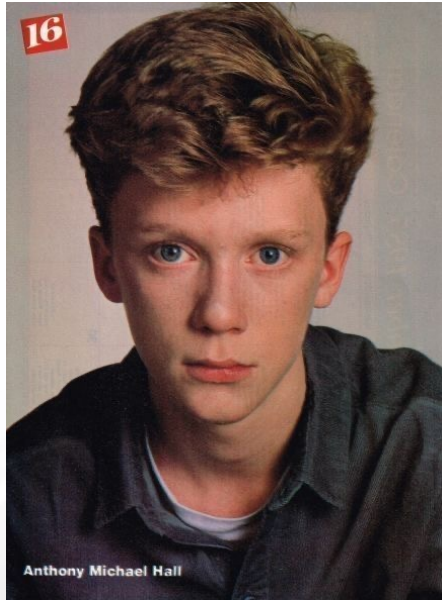
National Cancer Institute-Designated  
Comprehensive Cancer Center

**NCI**

**Designated  
Comprehensive  
Cancer Center**

# DISCLOSURES

No financial disclosures



It's a bit unfair to have to debate either the country's favorite doctor prodigy or a generationally famous child-actor.



## WHY DE-ESCALATION BASED ON PATHOLOGY IS A BAD IDEA

- We don't have data on de-escalation of surgery
- We do have data on outcomes with neo-adjuvant therapy and pathologic response
- True follow up time matters, not actuarial studies have continuously proven that time changes outcome
- Pathology is good, but not great and it has always relied on the tissue being removed

# WHY DOES TIME MATTER???

The NEW ENGLAND JOURNAL of MEDICINE

## ORIGINAL ARTICLE

### Hormone Therapy and the Progression of Coronary-Artery Atherosclerosis in Postmenopausal Women

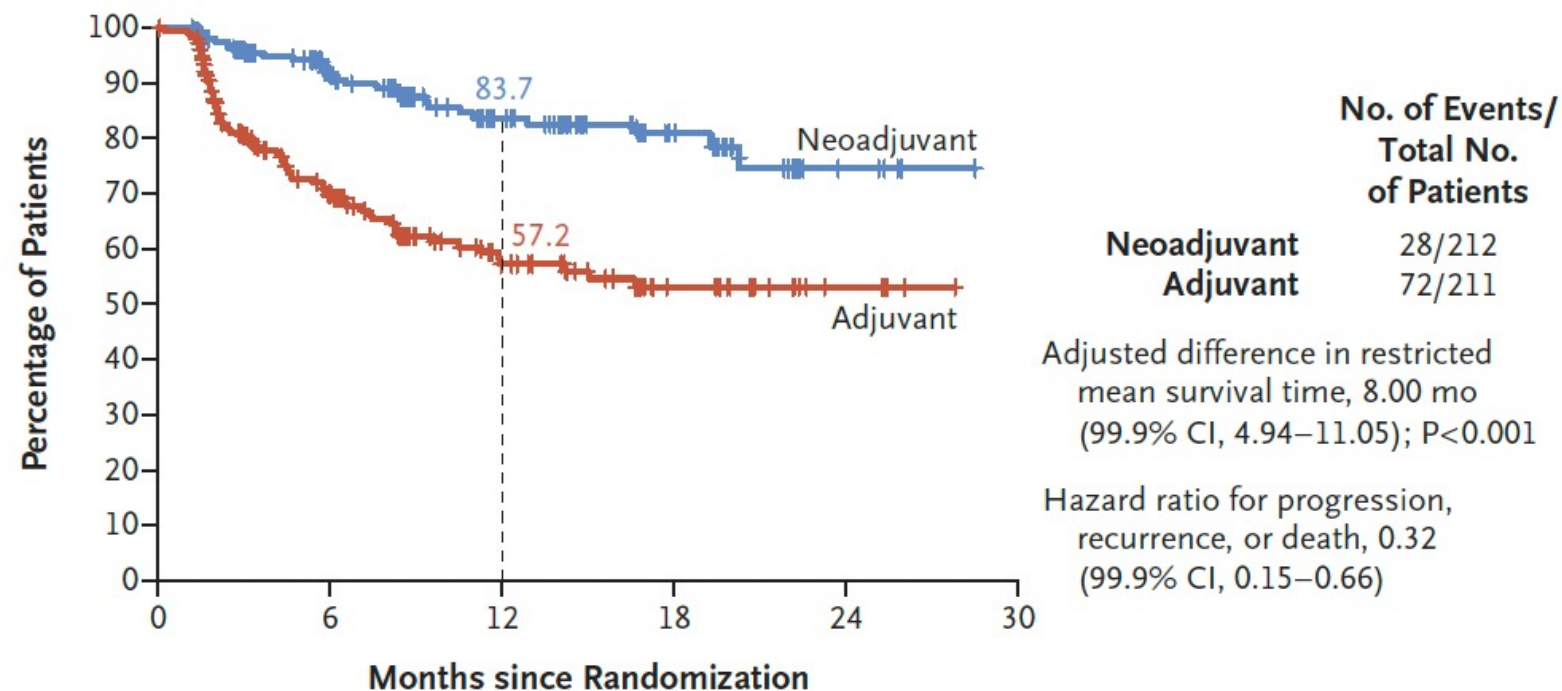
Late radiation morbidity following randomization to preoperative  
versus postoperative radiotherapy in extremity soft tissue sarcoma

Aileen M. Davis<sup>a,j,\*</sup>, Brian O'Sullivan<sup>b,j</sup>, Robert Turcotte<sup>c</sup>, Robert Bell<sup>b,d,j</sup>,  
Charles Catton<sup>b,j</sup>, Pierre Chabot<sup>e</sup>, Jay Wunder<sup>b,d,j</sup>, Alex Hammond<sup>f</sup>, Veronique Benk<sup>g</sup>,  
Rita Kandel<sup>d,j</sup>, Karen Goddard<sup>h</sup>, Carolyn Freeman<sup>c</sup>, Anna Sadura<sup>i</sup>,  
Benny Zee<sup>i</sup>, Andrew Day<sup>i</sup>, Dongsheng Tu<sup>i</sup>, Joseph Pater<sup>i</sup>,

A Canadian Sarcoma Group and NCI Canada Clinical Trials Group Randomized Trial

<sup>a</sup>Toronto Rehabilitation Institute, Canada, <sup>b</sup>Princess Margaret Hospital, Toronto, Canada, <sup>c</sup>McGill University Health Center, Montreal, Canada,  
<sup>d</sup>Mount Sinai Hospital, Toronto, Canada, <sup>e</sup>Hopital Maisonneuve-Rosemont, Montreal, Canada, <sup>f</sup>London Regional Cancer Centre, Ont., Canada,  
<sup>g</sup>Toronto-Sunnybrook Regional Cancer Centre, Ont., Canada, <sup>h</sup>BC Cancer Agency, Vancouver, Canada, <sup>i</sup>NCI Canada Clinical Trials Group, Cancer  
Research Institute, Ont., Canada, <sup>j</sup>University of Toronto, Canada

# NADINA TRIAL

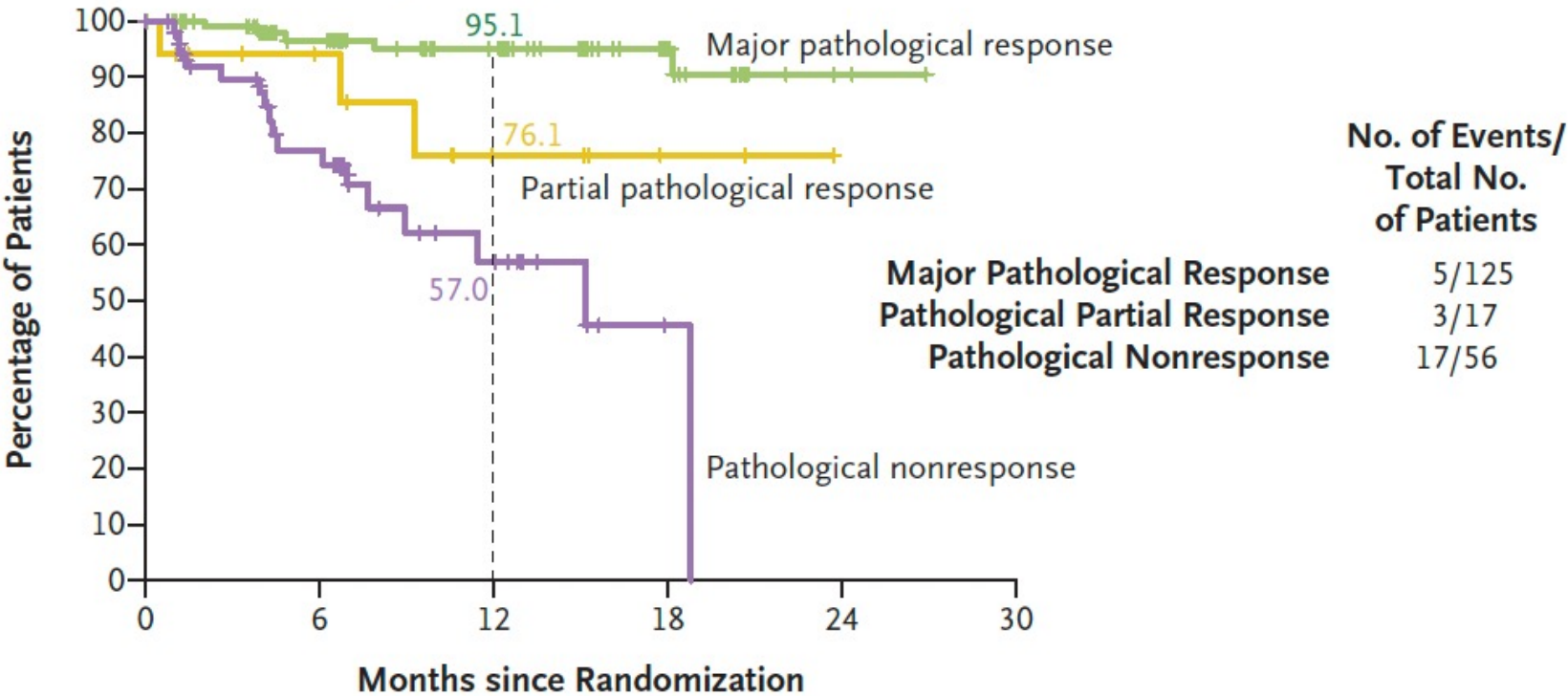


No. at Risk (no. censored)					
Noadjuvant	212 (0)	126 (71)	77 (111)	34 (152)	5 (179)
Adjuvant	211 (0)	100 (57)	53 (89)	23 (116)	6 (133)

Blank C, et al. N Engl J Med 2024 Jun 2.epub ahead of print.

# NADINA TRIAL II

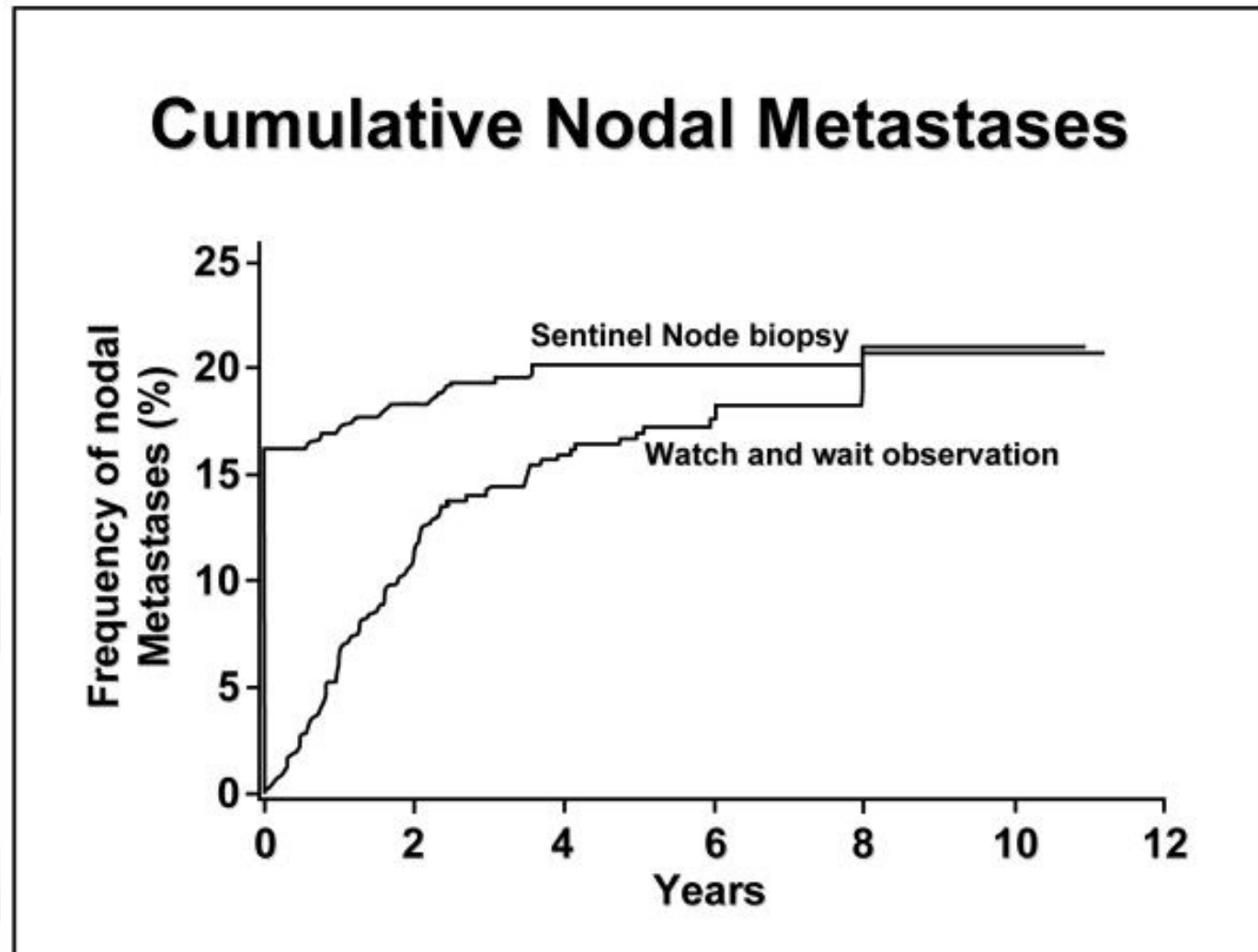
C Recurrence-free Survival According to Pathological Response



No. at Risk (no. censored)					
Major pathological response	125 (0)	76 (46)	55 (66)	22 (99)	2 (118)
Pathological partial response	17 (0)	11 (5)	5 (9)	2 (12)	
Pathological nonresponse	56 (0)	29 (17)	11 (30)	1 (39)	

Blank C, et al. N Engl J Med 2024 Jun 2.epub ahead of print.

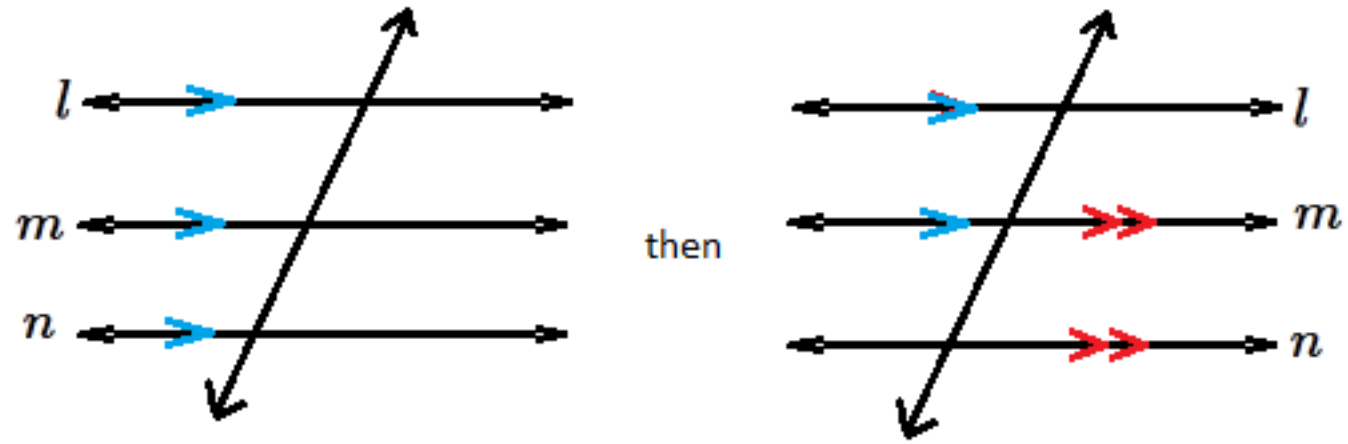
# MSLT-1 NODAL EVENTS



Slide courtesy of Mark Faries



# TRANSITIVE PROPERTY



If  $l \parallel m$  and  $m \parallel n$  then  $l \parallel n$ .



EMORY

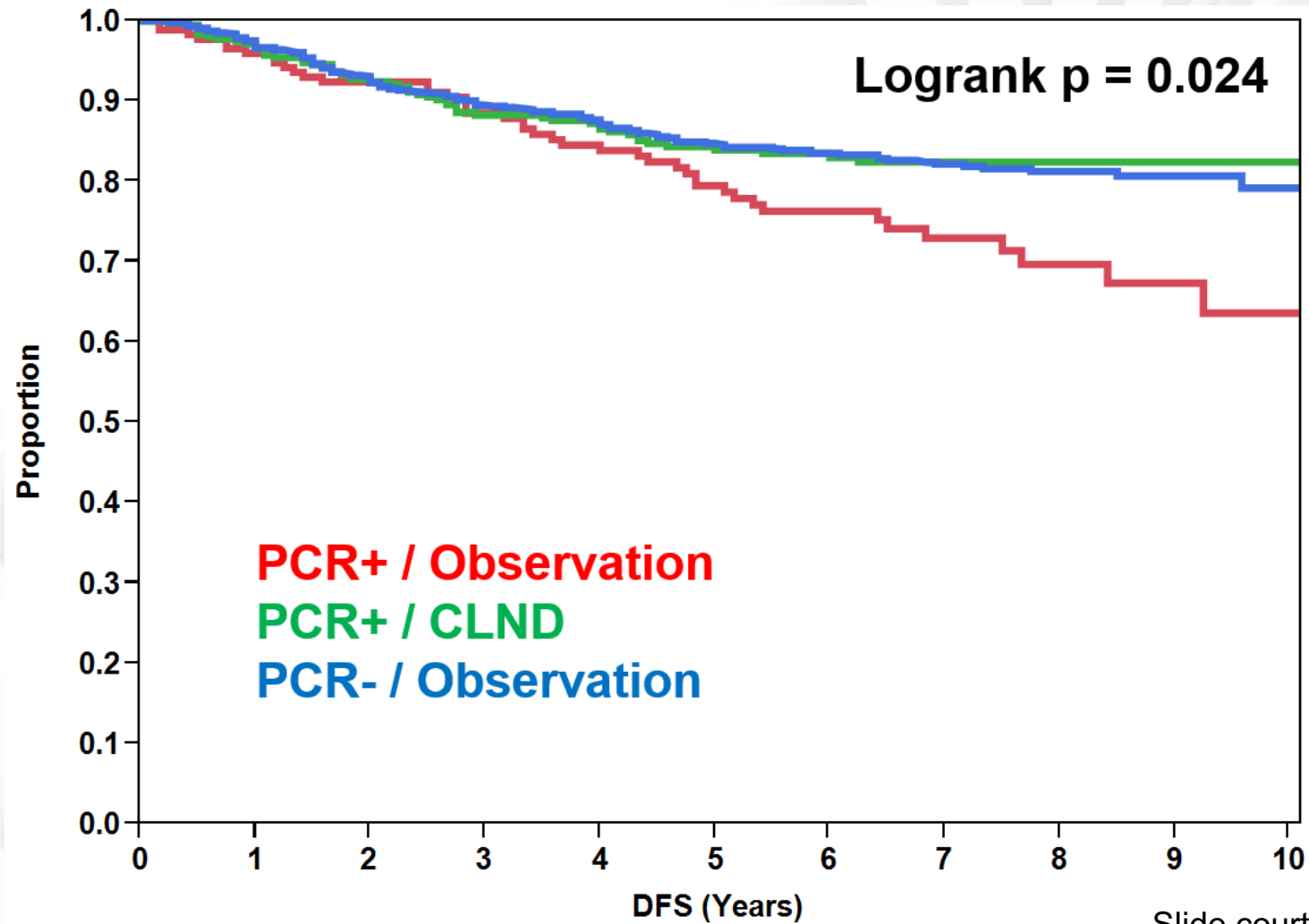


## TRANSITIVE PROPERTY: MSLT-1 AND MSLT-2/DECOG

- IF MSLT-1 OS in node + patients:
  - SLN + patients with early dissection: 70% 5 yr OS
  - OBS → completion dissection: 50% 5 yr OS
- And IF MSLT-2/DeCOG:
  - No impact from completion lymph node dissection
- Then: Removal of disease early matters

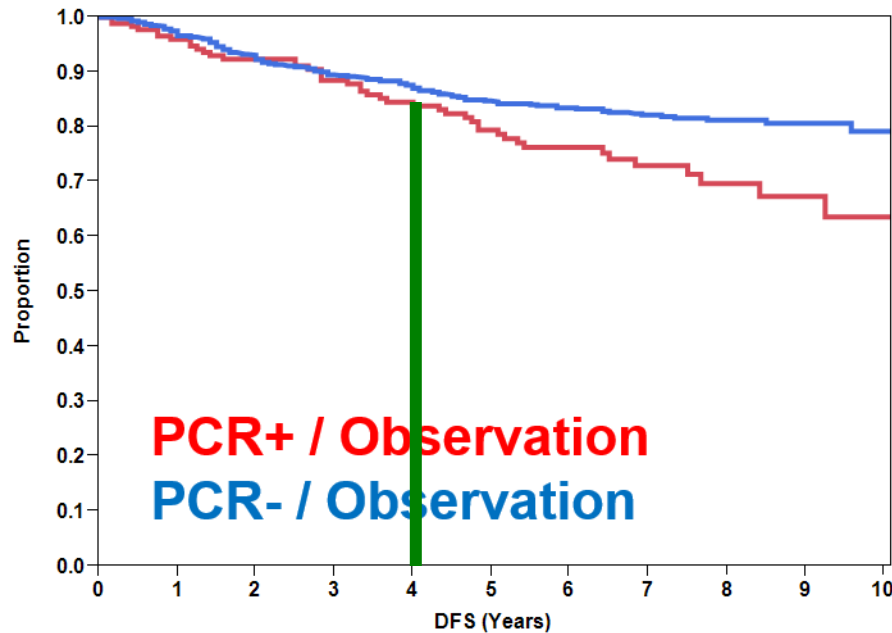
Morton DL, et al. **N Engl J Med.** 2014 Feb 13;370(7):599-609  
Faries M, et al. **N Engl J Med.** 2017 Jun 8;376(23):2211-2222  
Leiter U, et al. **Lancet Oncol.** 2016;17(6):757–767.

# DISEASE-FREE SURVIVAL

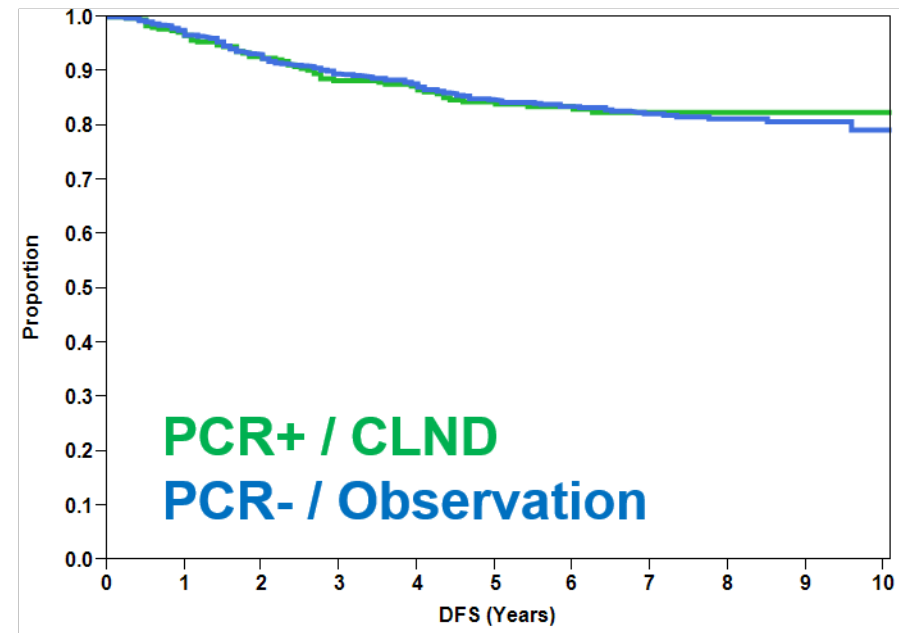


Slide courtesy of Kelly McMaster

# IMPACT OF PCR STATUS AND CLND ON DFS



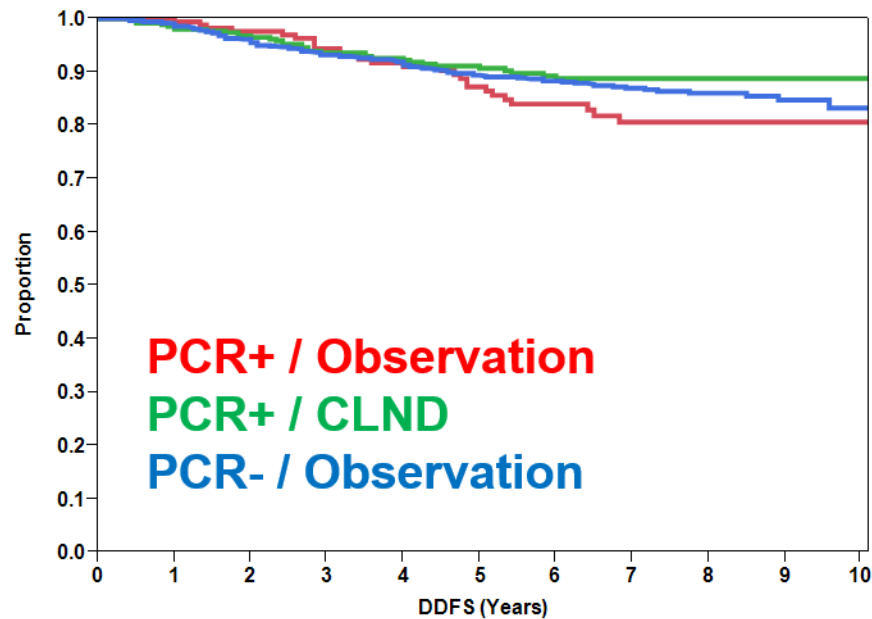
Logrank  $p = 0.0087$



Logrank

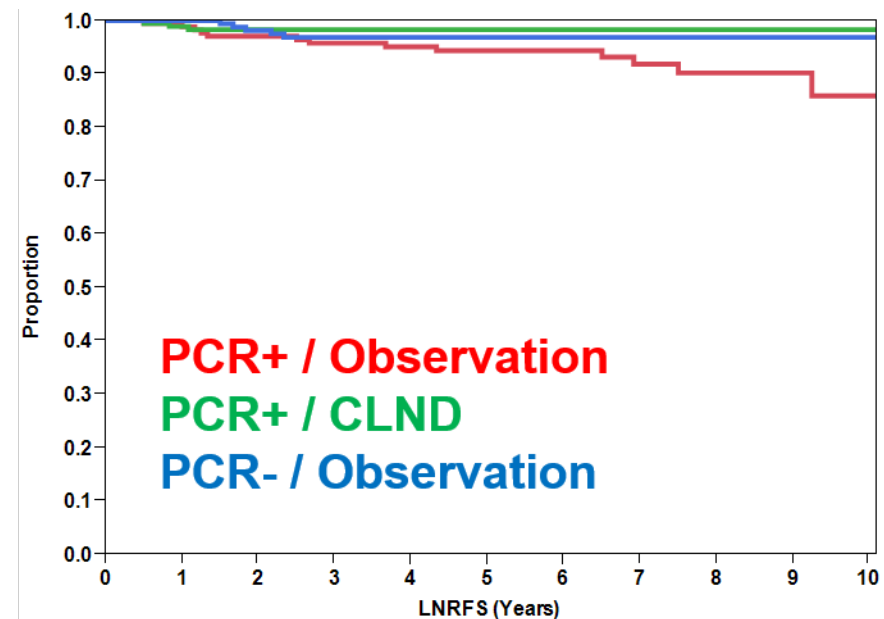
# PATTERNS OF RECURRENCE

## Distant Metastasis



Logrank  $p = 0.2547$

## Lymph Node Recurrence



Logrank  $p = 0.0261$



## RECURRENCE IN A NODAL BASIN MATTERS

- Early removal of disease has an impact
- Histologic assessment may not accurately reflect the entire status of the nodal basin (PCR in Sunbelt) need more resources to assess the entirety of the specimen
- Delayed recurrences may impact survival
  - Not enough follow up time
- Surgery is safe and effective with a complication profile far lower than systemic therapy

# LET'S NOT THROW THE BABY OUT WITH THE BATHWATER



- We have effective therapy that works for documented disease (original trials)
- Surgery is safe and effective
- We do not have long term follow up yet





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